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JOYNER, KEVIN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/676,908

**Applicant(s)**

KAHNER ET AL.

**Examiner**

KEVIN C. JOYNER

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 45-93 is/are pending in the application.  
4a) Of the above claim(s) 85-93 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 45-84 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 68 contains the trademark/trade name TIM-BOR®. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a biocide and, accordingly, the identification/description is indefinite.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 45-53, 56, 57, 61, 65-67, 77-79, 81, 83 and 84 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (U.S. Patent No. 5,893,216).

Smith discloses a method for abating contamination present within a cavity in a structure, comprising the steps of:

Exhausting contaminated air in the cavity in a controlled manner through one or more outlet openings in the structure that are in flow communication with the cavity (column 1, lines 22-28); and

Treating a contaminated surface in the cavity in a manner that is substantially non-destructive to the contaminated surface (column 3, lines 40-44) as disclosed in columns 2 and 3 as well as Figures 3-9. Regarding claim 46 the reference also discloses that the treating step comprises killing, destroying or removing at least a substantial portion of contaminants present on the contaminated surface with a biocide of as one of a mist, powder, granule, spray, vapor, foam, fog, gas, and liquid (concerning claim 47 & 48; column 3, lines 40-44). Concerning claims 49-51, Smith also discloses that the cavity is enclosed by the structure and is one of a wall, a ceiling or a floor (column 4, lines 24-26) and that the structure is one of a permanent, semi-permanent and temporary structure (column 1, lines 10-37). Concerning claims 52 and 53 the reference continues to disclose that the exhausting step limits flow of contaminated air into the ambient environment and that at least a portion of the contaminated air from the cavity is removed through said one or more outlet openings (column 3, lines 25-45).

Regarding claims 56 and 57 Smith also discloses that the exhausting step comprises the step of establishing a pressure gradient by at least drawing air from within the cavity through said one or more outlet openings and causing movement of air into the cavity through one or more inlet openings provided in the structure in flow communication with the cavity (column 3, lines 24-37). Regarding claims 61, 65 and 77, the reference continues to disclose that the biocide is introduced in to the cavity following the establishment of a pressure gradient, and that the treating step is taken in conjunction with the exhausting step (column 3, lines 41-44). This is provided by the disclosure that the antimicrobial agent is **introduced** into the airflow. Therefore, the airflow begins and continues while the agent is introduced. Concerning claims 66 and 67, Smith discloses that the biocide is ozone (column 3, lines 40-45). Regarding claims 78, 79 and 81, Smith also discloses that the substance is a bacteria in column 1, lines 30-35.

Regarding claim 83, Smith discloses a method for abating contamination of a contaminate surface of an open structure, comprising the steps of:

Creating a temporary enclosing structure substantially or completely enclosing a cavity, at least one portion of the structure is comprised of the contaminated surface of the open structure; and

Abating contamination present within the cavity in accordance with the method as in claim 45 (column 2 and 3; Figures 3-7 and 9). More specifically, inlet and outlet openings are formed in the walls that are contaminated with bacteria, which provides an open structure. The openings are enclosed by connecting nozzles to the openings to

remove the bacteria from inside the walls as disclosed in column 3, lines 20-45. The nozzles are disconnected after the decontamination occurs which creates an open structure again. Thus, the structure is an open one that is temporarily enclosed by the connection of the nozzles to the inlet and outlet openings. Concerning claim 84, as broadly defined, Smith also discloses that the creating step comprises the step of providing a hood in conjunction with the open structure to form the enclosing structure (Figure 8; column 4, lines 20-40).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014).

Smith is relied upon as set forth above. Smith does not appear to disclose that the method further comprises the step of removing contaminants from the contaminated air by filtration or returning the exhausted air in a closed loop process. Cole discloses a method for abating contamination present in a structure comprising the steps of: exhausting contaminated air in the structure in a controlled manner and treating the contaminated surface in the structure in column 1, lines 38-49. The reference continues

to disclose that the method further comprises the step of removing contaminants from the contaminated air by filtration and returning the exhausted air in a closed loop process in order to remove air particulates in the exhausted contaminated air and return decontaminated air to the structure (column 2, lines 1-10 and 33-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith to include the step of removing contaminants from the contaminated air by filtration or returning the exhausted air in a closed loop process in order to remove air particulates in the exhausted contaminated air and return decontaminated air to the structure as exemplified by Cole.

7. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Guasch (U.S. Patent No. 5,555,643).

Smith is relied upon as set forth above with respect to claim 57. Smith does not appear to disclose that a pliable seal is provided to seal the outlet opening to a device for drawing air from the cavity. Guasch discloses a method for the exhausting a cavity in a structure comprising nozzles attached to the structure to exhaust air in the cavity in said structure (Figure 1). The reference continues to disclose that the nozzle comprises a pliable seal (68) that is provided in order to ensure the connection between said structure and said nozzle arrangement (column 6, lines 32-38). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a pliable seal in the method of Smith in order to ensure the connection between the nozzle and the structure as exemplified by Guasch.

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8. Claims 59 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216)

Claims 59 and 60 further requires that the outlet openings are 0.5 inches to 1.5 inches in diameter and that the inlet openings are 0.25 to 1.0 inches in diameter. It would have been well within the purview of one of ordinary skill in the art to optimize the diameter of the inlet and outlet openings in order to maximize the pressure gradient that is created by the system. Only the expected results would be attained.

9. Claims 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Roy (U.S. Patent No. 5,968,401).

Smith is relied upon as set forth above. Smith does not appear to disclose that the treating step comprises applying microwaves that are capable of penetrating into the cavity in which the contaminants are present, and that are capable of killing or destroying at least a substantial portion of the contaminants by heating the contaminants. Roy discloses a method for abating contamination present within a cavity in a structure comprising the step of: treating a contaminated surface in the cavity in a manner that is substantially non-destructive to the contaminated surface. The reference continues to disclose that the treating step comprises applying microwaves that are capable of penetrating into the cavity in which the contaminants are present, and that are capable of killing or destroying at least a substantial portion of the contaminants by heating the contaminants in column 2, lines 1-30. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith to utilize microwaves that are capable of penetrating into the cavity

in which the contaminants are present, and that are capable of killing or destroying at least a substantial portion of the contaminants by heating the contaminants in order to effectively kill, destroy, or remove the contaminants from the cavity as exemplified Roy.

10. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Croan et al. (U.S. Patent No. 5,356,624).

Smith is relied upon as set forth above. Smith does not appear to disclose that the biocide comprises TIM-BOR®. However, TIM-BOR® is a conventionally known and commercially used product for the abatement of contamination present in a structure. Croan discloses an example of this wherein the reference teaches a method for the abatement of contamination present in a structure (column 3, lines 52-57; column 4, lines 10-25) wherein a biocide is present in the form of TIM-BOR®. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith to utilize TIM-BOR® as the biocide, as such is conventionally known and commercially used against contaminants such as mold as exemplified by Croan.

11. Claim 69-72, 75, 76, 80 and 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of White (EP 0 355 765 A2).

Smith is relied upon as set forth in reference to claim 45 above. Smith does not appear to introduce a lock-down material. White discloses a method of inhibiting contaminants such as parasitic spores and spore producing organisms (concerning claims 80 and 82; page 3, lines 10-22) in structures with cavities (page 2). The

reference continues to disclose that the method comprises the step of treating the structure with a spray (concerning claim 72; page 77, line 14) of lockdown material that provides a barrier to contaminants on the surface of the structure enclosing the cavity (concerning claim 71) in order to inhibit the contaminants (page 3, lines 23-35). More specifically, a coating is provided to the cavity in the structure in order to inhibit the spread of the contaminants. It is noted that a filter is provided in order to **assist** in the spreading. However, the coating inhibits the spreading as well. Regarding claim 70, since the method of Smith involves establishing a pressure gradient in the cavity to facilitate the dispersal of the material utilized in the treating step, then it is known that the same pressure gradient is utilized to facilitate the dispersal of material in this treating step as well, the dispersal comprising the lock-down material.

Regarding claim 75, while Smith discloses that the treating step comprises the killing step (column 3, lines 20-40); Smith does not appear to disclose that the treating step comprises the applying step. As disclosed in the previous paragraph, White discloses a method of inhibiting contaminants with a treating step comprising applying a material to limit the dispersal of contaminants within a cavity (page 3, lines 22-35) in order to inhibit contaminants from spreading throughout the structure. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the treating step of Smith to include a step of applying a material to limit the dispersal of contaminants within a cavity in order to inhibit contaminants from spreading throughout the structure as exemplified by White. Concerning claim 76, In *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) the courts held that the selection of

any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. Thus, the limitations concerning the applying material step in conjunction with the killing step is considered to be unpatentable in view of Smith and White (See MPEP 2144.04 IV (C)).

12. Claims 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (U.S. Patent No. 5,893,216) in view of White (EP 0 355 765 A2) as applied to claims 54-55 and 69-72 above, and further in view of Kourai et al (U.S. Patent No. 4,826,924).

Smith in view of White is relied upon as set forth above. Smith in view of White does not appear to disclose that the lock-down material includes the material of styrene. Kourai discloses an antibacterial polymer that is utilized against mold spores in floor material, ceiling material and building material (column 1, lines 10-20). The reference continues to disclose that the antibacterial includes the substituted ethylene monomer of styrene (column 1, lines 50-55) in order to provide an enhanced antibacterial effect and improve the durability of the product. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith in view of White to include in the lock-down material the material of styrene in order to enhance the antibacterial effect against molds and provide longer durability for the material as exemplified by Kourai.

### ***Response to Arguments***

13. Applicant's arguments, see pages 12-14, filed January 17, 2008, with respect to claims 45-84 have been fully considered and are persuasive. The previous rejection of Molleker has been withdrawn. However, upon further consideration a new rejection is made as set forth above with respect to claims 45-84.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN C. JOYNER whose telephone number is (571)272-2709. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth L McKane/  
Primary Examiner, Art Unit 1797

KCJ